UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,493	02/21/2002	Richard M. Willems	032722-650	5968

46909 7590 11/16/2005	EXAMINER
TERUMO CARDIOVASCULAR SYSTEMS CORPORATION	BROWN, VERNAL U

	ART UNIT	PAPER NUMBER
	2635	

TERUMO CARDIOVASCULAR SYSTEMS CORPORATION
6200 JACKSON ROAD
ANN ARBOR, MI 48103

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/078,493	WILLEMS ET AL.
	Examiner	Art Unit
	Vernal U. Brown	2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 February 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-43</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-43</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>21 February 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/1/04 & 9/21/04

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

The application of Richard Willems for Network Communication and Message Protocol

for a Medical Perfusion System filed on 2/21/2002 has been examined. Claims 1-43 are

pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is
appropriate where the conflicting claims are not identical, but at least one examined application
claim is not patentably distinct from the reference claim(s) because the examined application
claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g.,
In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re
Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ
619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may
be used to overcome an actual or provisional rejection based on a nonstatutory double patenting
ground provided the conflicting application or patent either is shown to be commonly owned
with this application, or claims an invention made as a result of activities undertaken within the
scope of a joint research agreement.
    Effective January 1, 1994, a registered attorney or agent of record may sign a terminal
    disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR
    3.73(b).
    Claims 1-43 are rejected under the judicially created doctrine of obviousness-type double

patenting as being unpatentable over claims 1-15 of U.S. Patent No. 5813972. Although the

conflicting claim is not identical, they are not patentably distinct from each other.

Although the conflicting claim is not identical, they are not patentably distinct from each

other because the instant claims are generally broader than the claims in the patent. Broader

claims in a later application constitute obvious double patenting of narrow claims in an issued

patent. See in re Van Ornumand Stang, 214, USPQ 761, 766, and 767 (CCPA) (the court

sustained an obvious double patenting rejection of generic claims in a continuation application

over narrower species claims in an issued patent); in re Vogel, 164 USPQ 619, 622 and 623

(CCPA 1970) (generic application claim specifying "meat" is obvious double patenting of

narrow patent specifying "pork")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 5-7, 9, 17-21, 23-24, 27-29, 30-32, and 36-41, are rejected under 35 U.S.C.

103(a) as being unpatentable over Sites et al. US Patent 5730720 in view of Aggers US Patent

4949337.

Regarding claims 1, 9, 17, 27, 30, Sites et al. teaches a medical perfusion system (figure

2A) comprising a plurality of perfusion devices (310, 320, 370), a communication bus

connecting each of the plurality of devices (figure 2A); means (111) for broadcasting a message

(control signals) to the perfusion device (col. 11 lines 59-65). Sites et al. is however silent on

teaching the broadcast message contains a data portion which identifies the message as being one

of a number of predefined message types. Aggers et al. in an art related communication system

teaches a plurality of communication devices communicating over a common communication

bus (figure 1) and the broadcasting of messages to the devices on the communication bus (col. 5

lines 33-39). Aggers et al. also teaches messages transmitted over the communication bus

includes a data portion which identifies the message as being one of a number of predefined

message types as shown in the message structure of figure 3 in order for the devices to readily identify the purpose of the purpose of the received message and to facilitate the proper processing of the broadcast message

It would have been obvious to one of ordinary skill in the art for the broadcast message in Sites et al. to include a data portion which identifies the message as being one of a number of predefined message types in Sites et al. as evidenced by Aggers et al. because Sites et al. teaches broadcasting message over a communication bus to a number of perfusion devices and Aggers et al. teaches including a data portion which identifies the message as being one of a number of predefined message types in order for the receiving device to determine the types of message sent so as to enable proper processing of the broadcast message.

Regarding claims 5-6, 18, 23-24, Sites teaches transmitting configuration type message to the perfusion device as indicated by the process 206 in figure 2 and the message also serves as a trigger signal because it activates the pump..

Regarding claims 7, 19, 28, Sites teaches means for adjusting an output as a function of the feedback data by adjusting the pressure based on the value of the pressure read as illustrated in figure 2.

Regarding claim 20, Sites teaches the perfusion device is sensing various biological measurements (col. 6 lines 1-26).

Regarding claim 21, 29, 31-32 Sites et al. teaches means for storing the configuration data for network connection (col. 7 lines 40-43) and the configuration data for networked device inherently includes the network address. The network address further serve as a filter for ensuring that the networked device only respond to message address to it.

Regarding claims 36-38, Sites et al. teaches a medical perfusion system (figure 2A) comprising a plurality of perfusion devices (310, 320, 370), a communication bus connecting each of the plurality of devices (figure 2A); means (111) for broadcasting a message (control signals) to the perfusion device (col. 11 lines 59-65). Sites teaches the trigger source include a means for broadcasting data concerning the existent of a certain condition by transmitting control signal to alter the performance of the perfusion device (col. 11 lines 56-65). Sites et al. is however silent on teaching the broadcast message contains a data portion which identifies the message as being one of a number of predefined message types. Aggers et al. in an art related communication system teaches a plurality of communication devices communicating over a common communication bus (figure 1) and the broadcasting of messages to the devices on the communication bus (col. 5 lines 33-39). Aggers et al. also teaches messages transmitted over the communication bus includes a data portion which identifies the message as being one of a number of predefined message types as shown in the message structure of figure 3 in order for the devices to readily identify the purpose of the purpose of the received message and to facilitate the proper processing of the broadcast message

It would have been obvious to one of ordinary skill in the art for the broadcast message in Sites et al. to include a data portion which identifies the message as being one of a number of predefined message types in Sites et al. as evidenced by Aggers et al. because Sites et al. teaches broadcasting message over a communication bus to a number of perfusion devices and Aggers et al. teaches including a data portion which identifies the message as being one of a number of predefined message types in order for the receiving device to determine the types of message sent so as to enable proper processing of the broadcast message.

Regarding claim 39-41, Sites et al. teaches means for storing the configuration data for network connection (col. 7 lines 40-43) and the configuration data for networked device inherently includes the network address. The network address further serve as a filter for ensuring that the networked device only respond to message address to it. Sites teaches transmitting configuration type message to the perfusion device as indicated by the process 206 in figure 2 and the message also serves as a trigger signal because it activates the pump.

Claims 2-3, 10, 13-15, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et al. US Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Grudowski et al. US Patent 4319338.

Regarding claims 2-3, 10, 33 Sites et al. teaches transmitting message over a network to a perfusion device and Aggers teaches the message includes a data portion which identifies the message as being one of a number of predefined message types (see response to claim 1 above). Sites et al. in view of Aggers is however silent on teaching the data portion of the message defines a priority level based on the message type. Grudowski et al. in an art related communication system teaches assigning priority level to a message (col. 13 lines 32-35) as a means of optimizing the use of the devices on the network.

It would have been obvious to one of ordinary skill in the art to for the data portion of the message to define a priority level in Sites et al. in view of Aggers as evidenced by Grudowski et

al. because Sites et al. teaches transmitting message over a network to a perfusion device and

Aggers teaches the message includes a data portion which identifies the message as being one of

a number of predefined message types and Grudowski et al. teaches assigning priority level to a

message (col. 13 lines 32-35) as a means of optimizing the use of the devices on the network.

Regarding claims 13-14, Sites teaches transmitting configuration type message to the

perfusion device as indicated by the process 206 in figure 2 and the message also serves as a

trigger signal because it activates the pump..

Regarding claim 15, Sites teaches means for adjusting an output as a function of the

feedback data by adjusting the pressure based on the value of the pressure read as illustrated in

figure 2.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et al. US

Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Milling US Patent

4628311.

Regarding claim 4, Sites et al. in view of Aggers teaches perfusion device connected by a

network (see response to claim 1) but is silent on teaching the data portion of the message over

the network defines a priority level based on the first perfusion device or the network address.

Milling in an art related network system invention teaches the priority level of a networked

device based on the network address assigned to the device and the priority is also base on the

device (col. 4 lines 60-col. 5 line 11) in order to ensure that data is transmitted to the networked

devices in order of their priority and further efficiently use the shared network resources.

It would have been obvious to one of ordinary skill in the art for the data portion of the

message over the network defines a priority level based on the first perfusion device or the

network address in Sites et al. in view of Aggers as evidenced by milling because Sites et al. in

view of Aggers suggests perfusion device connected by a network and Milling teaches having a

priority based on the networked address in order to ensure that data is transmitted to the

networked devices in order of their priority and further efficiently use the shared network

resources.

Claims 8 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et

al. US Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Rowett US

Patent 5448723.

Regarding claims 8 and 26, Sites et al. in view of Aggers teaches perfusion device

connected by a network (see response to claim 1) but is silent on teaching the message is

broadcast from a second perfusion device when the network controller is unavailable. One

skilled in the art recognizes that when the network controller is unavailable another networked

device on the communication bus is sometimes configured to broadcast messages as evidenced

by Rowett (col. 2 lines 14-25) so as to allow the continued operation of the networked devices

when the network controller fail.

It would have been obvious to one of ordinary skill in the art for the message to be

broadcast from a second perfusion device when the network controller is unavailable because

Sites et al. in view of Aggers suggests perfusion device connected by a network and one skilled

in the art recognizes that when the network controller is unavailable another networked device on

the communication bus is sometimes configured to broadcast messages as evidenced by Rowett

(col. 2 lines 14-25) so as to allow the continued operation of the networked devices when the

network controller fail.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et al.

US Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Grudowski et

al. US Patent 4319338 and further in view of Milling US Patent 4628311.

Regarding claims 11-12, Sites et al. in view of Aggers teaches perfusion device

connected by a network (see response to claim 1) but is silent on teaching the data portion of the

message over the network defines a priority level based on the first perfusion device or the

network address. Milling in an art related network system invention teaches the priority level of a

networked device based on the network address assigned to the device and the priority is also

base on the device (col. 4 lines 60-col. 5 line 11) in order to ensure that data is transmitted to the

networked devices in order of their priority and further efficiently use the shared network

resources.

It would have been obvious to one of ordinary skill in the art for the data portion of the

message over the network defines a priority level based on the first perfusion device or the

network address in Sites et al. in view of Aggers in view of Grudowski et al. as evidenced by

Milling because Sites et al. in view of Aggers suggests perfusion device connected by a network

and Milling teaches having a priority based on the networked address in order to ensure that data

is transmitted to the networked devices in order of their priority and further efficiently use the

shared network resources.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et al. US Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Grudowski et al. US Patent 4319338 and further in view of Rowett US Patent 5448723.

Regarding claim 16, Sites et al. in view of Aggers teaches perfusion device connected by a network (see response to claim 1) but is silent on teaching the message is broadcast from a second perfusion device when the network controller is unavailable. One skilled in the art recognizes that when the network controller is unavailable another networked device on the communication bus is sometimes configured to broadcast messages as evidenced by Rowett (col. 2 lines 14-25) so as to allow the continued operation of the networked devices when the network controller fail.

It would have been obvious to one of ordinary skill in the art for the message to be broadcast from a second perfusion device when the network controller is unavailable because Sites et al. in view of Aggers in view of Grudowski et al. suggests perfusion device connected by a network and one skilled in the art recognizes that when the network controller is unavailable another networked device on the communication bus is sometimes configured to broadcast messages as evidenced by Rowett (col. 2 lines 14-25) so as to allow the continued operation of the networked devices when the network controller fail.

Claims 22, 25, 34-35, and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sites et al. US Patent 5730720 in view of Aggers US Patent 4949337 and further in view of Hamlin US Patent 5574964.

Regarding claims 22, 25, 34, and Sites et al. in view of Aggers teaches perfusion device connected by a network (see response to claim 1) and an adaptor pod is inherently included in a device that is connected to a wired networked but is silent on teaching an adaptor pod comprising means for storing the configuration data and the configuration data includes the network address. Hamlin in an art related signal distribution system teaches an adaptor pod storing the network address (col. 4 lines 18-22, col. 4 lines 41-45).

It would have been obvious to one of ordinary skill in the art to store the network address in the adaptor pod in the networked perfusion device because storing the networked address in the adaptor pod is a convenient and efficient means of storing the network address.

Regarding claim 35 and 42-43, Sites et al. teaches means for storing the configuration data for network connection (col. 7 lines 40-43) and the configuration data for networked device inherently includes the network address. The network address further serve as a filter for ensuring that the networked device only respond to message address to it.

Conclusion

The prior art of made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5524213 to Dais et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vernal Brown
November 9, 2005

BRIAN ZIMMERMAN
PRIMARY EXAMINER